

WHAT IS CLAIMED IS:

1. A fluoroelastomer comprising copolymerized units of
 - (A) a first fluoromonomer selected from the group consisting of vinylidene fluoride and tetrafluoroethylene;
 - (B) at least one second fluoromonomer, different from said first fluoromonomer;
 - (C) 0.05 to 4 weight percent, based on total weight of said fluoroelastomer, of a cure site monomer having the general formula $\text{CH}_2=\text{CH}-(\text{CF}_2)_n\text{I}$, where n is an integer between 2 and 8; and
 - (D) 0.01 to 1 weight percent, based on total weight of said fluoroelastomer, of iodine bound at terminal positions of fluoroelastomer polymer chains.
2. A fluoroelastomer of claim 1 wherein said cure site monomer is 4-iodo-3,3,4,4-tetrafluorobutene-1.
3. A fluoroelastomer of claim 1 wherein said first fluoromonomer is vinylidene fluoride.
4. A fluoroelastomer of claim 1 wherein said first fluoromonomer is vinylidene fluoride and wherein said second fluoromonomer is selected from the group consisting of fluorine-containing olefins, fluorine-containing ethers, and mixtures thereof.
5. A fluoroelastomer of claim 4 wherein said second fluoromonomer is selected from the group consisting of hexafluoropropylene, tetrafluoroethylene, 1,2,3,3,3-pentafluoropropene, chlorotrifluoroethylene, vinyl fluoride and perfluoro(methyl vinyl ether).
6. A fluoroelastomer of claim 1 wherein said first fluoromonomer is tetrafluoroethylene.
7. A fluoroelastomer of claim 1 wherein said first fluoromonomer is tetrafluoroethylene and wherein said second fluoromonomer is selected from the group consisting of fluorine-containing olefins, fluorine-containing ethers, and mixtures thereof.

8. A fluoroelastomer of claim 7 wherein said second fluoromonomer is selected from the group consisting of hexafluoropropylene, vinylidene fluoride, 1,2,3,3,3-pentafluoropropene, chlorotrifluoroethylene, vinyl fluoride and perfluoro(methyl vinyl ether).

9. A fluoroelastomer of claim 1 comprising copolymerized units of 30 to 60 wt.% vinylidene fluoride, 15 to 30 wt.% tetrafluoroethylene, 25 to 45 wt.% hexafluoropropylene, 0.1 to 0.4 wt.% 4-iodo-3,3,4,4-tetrafluorobutene-1 and 0.05 to 0.40 wt.% I at chain ends.

10. A fluoroelastomer of claim 1 comprising copolymerized units of 20 to 65 wt.% vinylidene fluoride, 5 to 30 wt.% tetrafluoroethylene, 30 to 45 wt.% perfluoro(methyl vinyl ether), 0.1 to 0.4 wt.% 4-iodo-3,3,4,4-tetrafluorobutene-1 and 0.05 to 0.40 wt.% I at chain ends.

11. A fluoroelastomer of claim 1 comprising copolymerized units of 44 to 60 wt.% tetrafluoroethylene, 39 to 55 wt.% perfluoro(methyl vinyl ether), 0.1 to 0.4 wt.% 4-iodo-3,3,4,4-tetrafluorobutene-1 and 0.05 to 0.40 wt.% I at chain ends.

12. A curable fluoroelastomer composition comprising:

(A) a fluoroelastomer comprising (i) a first fluoromonomer selected from the group consisting of vinylidene fluoride and tetrafluoroethylene; (ii) at least one second fluoromonomer, different from said first fluoromonomer; (iii) 0.05 to 4 weight percent, based on total weight of said fluoroelastomer, of a cure site monomer having the general formula $\text{CH}_2=\text{CH}-(\text{CF}_2)_n\text{I}$, where n is an integer between 2 and 8; and (iv) 0.01 to 1 weight percent, based on total weight of said fluoroelastomer, of iodine bound at terminal positions of fluoroelastomer polymer chains;

(B) an organic peroxide; and

(C) a coagent.

13. A curable fluoroelastomer composition of claim 12 further comprising (D) an acid acceptor.

14. A curable fluoroelastomer composition of claim 13 wherein said acid acceptor is selected from the group consisting of a divalent metal

oxide, a divalent metal hydroxide, an organic amine having a pKa greater than 10, and mixtures thereof.

15 15. A curable fluoroelastomer composition of claim 12 wherein
said fluoroelastomer cure site monomer is 4-iodo-3,3,4,4-
tetrafluorobutene-1.

16. A curable fluoroelastomer composition of claim 12 wherein
said first fluoromonomer in said fluoroelastomer is vinylidene fluoride.

10 17. A curable fluoroelastomer composition of claim 12 wherein
said first fluoromonomer in said fluoroelastomer is vinylidene fluoride and
wherein said second fluoromonomer is selected from the group consisting
of fluorine-containing olefins, fluorine-containing ethers, and mixtures
thereof.

15 18. A curable fluoroelastomer composition of claim 17 wherein
said second fluoromonomer is selected from the group consisting of
hexafluoropropylene, tetrafluoroethylene, 1,2,3,3,3-pentafluoropropene,
chlorotrifluoroethylene, vinyl fluoride and perfluoro(methyl vinyl ether).

19. A curable fluoroelastomer composition of claim 12 wherein
said first fluoromonomer in said fluoroelastomer is tetrafluoroethylene.

20 20. A curable fluoroelastomer composition of claim 12 wherein
said first fluoromonomer in said fluoroelastomer is tetrafluoroethylene and
wherein said second fluoromonomer is selected from the group consisting
of fluorine-containing olefins, fluorine-containing ethers, and mixtures
thereof.

25 21. A curable fluoroelastomer composition of claim 20 wherein
said second fluoromonomer is selected from the group consisting of
hexafluoropropylene, vinylidene fluoride, 1,2,3,3,3-pentafluoropropene,
chlorotrifluoroethylene, vinyl fluoride and perfluoro(methyl vinyl ether).

30 22. A curable fluoroelastomer composition of claim 12 wherein
said fluoroelastomer comprises copolymerized units of 30 to 60 wt.%
vinylidene fluoride, 15 to 30 wt.% tetrafluoroethylene, 25 to 45 wt.%

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hexafluoropropylene, 0.1 to 0.4 wt.% 4-iodo-3,3,4,4-tetrafluorobutene-1 and 0.05 to 0.40 wt.% I at chain ends.

23. A curable fluoroelastomer composition of claim 12 wherein
5 said fluoroelastomer comprises copolymerized units of 20 to 65 wt.% vinylidene fluoride, 5 to 30 wt.% tetrafluoroethylene, 30 to 45 wt.% perfluoro(methyl vinyl ether), 0.1 to 0.4 wt.% 4-iodo-3,3,4,4-tetrafluorobutene-1 and 0.05 to 0.40 wt.% I at chain ends.

24. A curable fluoroelastomer composition of claim 12 wherein
10 said fluoroelastomer comprises copolymerized units of 44 to 60 wt.% tetrafluoroethylene, 39 to 55 wt.% perfluoro(methyl vinyl ether), 0.1 to 0.4 wt.% 4-iodo-3,3,4,4-tetrafluorobutene-1 and 0.05 to 0.40 wt.% I at chain ends.

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